



# Iowa Influenza Surveillance Network (IISN)

## Influenza-like Illness (ILI) and Other Respiratory Viruses

### Weekly Activity Report

For the week ending March 28, 2015 - Week 12

All data presented in this report are provisional and may change as additional reports are received



Quick Stats	
Percent of outpatient visits for ILI <sup>1</sup>	0.64% (baseline 1.7%)
Percent of influenza rapid test positive	20.6% (256/1286)
Percent of RSV rapid tests positive	29.1% (85/292)
Percent school absence due to illness <sup>2</sup>	2.19%
Number of schools with ≥10% absence due to illness	3
Influenza-associated hospitalizations <sup>3</sup>	35/5,781 inpatients surveyed
Influenza-associated pediatric mortality (Cumulative)	3

<sup>1</sup> ILI: Influenza-like illness is defined as a fever of ≥100° F as well as cough and/or sore throat.

<sup>2</sup> Percent school absence due to illness are reported through a weekly survey of Iowa sentinel schools

<sup>3</sup> Hospitalizations due to influenza are voluntarily reported through a weekly survey of Iowa sentinel hospitals

Iowa Influenza Geographic Spread <sup>2</sup>	
No Activity	
Sporadic	
Local	
<b>Regional</b>	
Widespread	

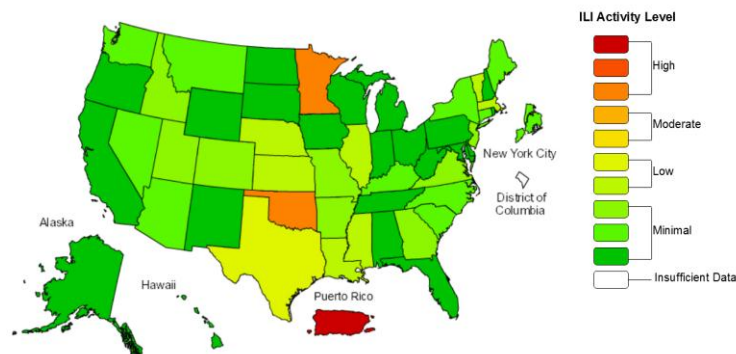
<sup>2</sup> This is based on CDC's activity estimates definition  
[www.cdc.gov/flu/weekly/overview.htm](http://www.cdc.gov/flu/weekly/overview.htm)

### Iowa statewide activity summary:

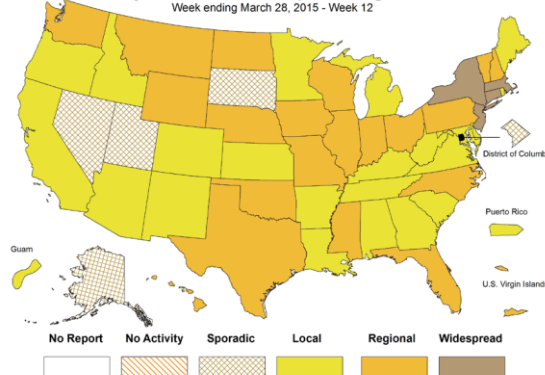
The geographic spread of influenza in Iowa remains regional. For this reporting week, the State Hygienic Laboratory detected one flu B(Victoria lineage), and seven flu B(Yamagata lineage) cases. Three schools reported 10 percent or greater absenteeism and 35 influenza-associated hospitalizations were reported from sentinel hospitals. There have been 60 reported influenza outbreaks in Iowa long-term care facilities this influenza season and IDPH has confirmed three influenza-related deaths in children (age 0-17).

### National activity summary - (CDC):

Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet  
 2014-15 Influenza Season Week 12 ending Mar 28, 2015



Weekly Influenza Activity Estimates Reported by State & Territorial Epidemiologists\*  
 Week ending March 28, 2015 - Week 12



**Synopsis:** During week 12 (March 22-28, 2015), influenza activity continued to decrease, but remained elevated in the United States.

**Viral Surveillance:** Of 12,014 specimens tested and reported by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories during week 12, 1,300 (10.8 percent) were positive for influenza.

**Pneumonia and Influenza Mortality:** The proportion of deaths attributed to pneumonia and influenza (P&I) was below the epidemic threshold.

**Influenza-associated Pediatric Deaths:** Seven influenza-associated pediatric deaths were reported.

**Influenza-associated Hospitalizations:** A cumulative rate for the season of 59.9 laboratory-confirmed influenza-associated hospitalizations per 100,000 population was reported.

**Outpatient Illness Surveillance:** The proportion of outpatient visits for influenza-like illness (ILI) was 2.0 percent, which is at the national baseline of 2.0 percent. Five regions reported ILI at or above region-specific baseline levels. Puerto Rico and two states experienced high ILI activity; eight states experienced low ILI activity; New York City and 40 states experienced minimal ILI activity; and the District of Columbia had insufficient data.

**Geographic Spread of Influenza:** The geographic spread of influenza in four states was reported as widespread; the U.S. Virgin Islands and 20 states reported regional activity; Guam, Puerto Rico, and 22 states reported local activity; and the District of Columbia and four states reported sporadic activity.

Detailed information can be found online at [www.cdc.gov/flu/weekly/](http://www.cdc.gov/flu/weekly/)

## International activity summary - (WHO):

Globally, influenza activity remained elevated in the northern hemisphere with influenza A(H3N2) viruses predominating, although some countries in Asia, Europe and North Africa reported high levels of activity associated with influenza A(H1N1)pdm09 viruses. Detailed information can be found online at [www.who.int/influenza/surveillance\\_monitoring/updates/latest\\_update\\_GIP\\_surveillance/en/](http://www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/).

## Laboratory surveillance program:

The State Hygienic Laboratory (SHL) is the primary lab for influenza testing and reporting in Iowa. SHL reports the number of tests performed and the type and strain of positive tests to the influenza surveillance network several times every week. In addition, SHL surveys clinical and reference labs for the number of rapid-antigen tests performed and number positive weekly. This report also includes the positive non-influenza virus tests reported from SHL, the Dunes Medical Laboratories at Mercy Medical Center in Sioux City, and Iowa Methodist Medical Center in Des Moines.

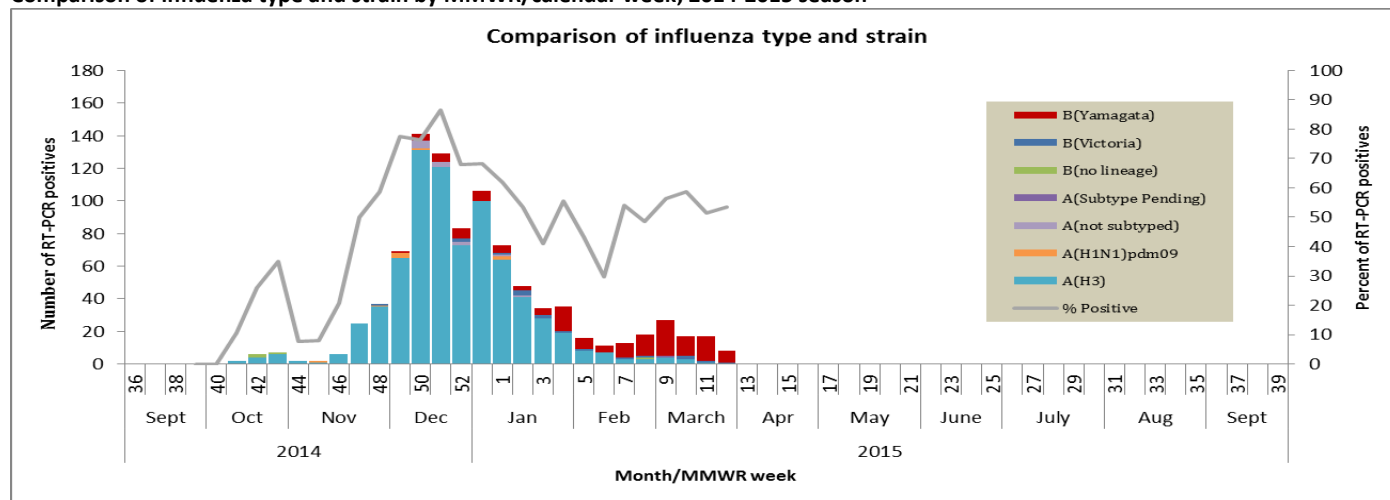
	CURRENT WEEK				YEAR TO DATE (9/1/14 – PRESENT WEEK)			
Age Group	Flu A				Flu A			
	A(H1N1)pdm09	A(H3)	Subtype Pending	Not subtyped	A(H1N1)pdm09	A(H3)	Subtype Pending	Not subtyped
0-4	0(0%)	0(0%)	0(0%)	0(0%)	3(38%)	64(9%)	0(0%)	1(9%)
5-17	0(0%)	0(0%)	0(0%)	0(0%)	1(13%)	122(17%)	0(0%)	2(18%)
18-24	0(0%)	0(0%)	0(0%)	0(0%)	0(0%)	62(8%)	0(0%)	1(9%)
25-49	0(0%)	0(0%)	0(0%)	0(0%)	2(25%)	83(12%)	0(0%)	1(9%)
50-64	0(0%)	0(0%)	0(0%)	0(0%)	1(12%)	63(9%)	0(0%)	3(27%)
>64	0(0%)	0(0%)	0(0%)	0(0%)	1(12%)	327(45%)	0(0%)	3(27%)
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>721</b>	<b>0</b>	<b>11</b>

\*Counts of three or less are sometimes suppressed to protect confidentiality. Note that counts may not add up to the total due to missing age information  
 Only cases of Iowa residents are included  
 "Not subtyped" column is due to weak detections. This can be due to poor collection, timing of collection or stage of infection.

	CURRENT WEEK			YEAR TO DATE (9/1/14 – PRESENT WEEK)		
Age Group	Flu B			Flu B		
	Victoria Lineage	Yamagata Lineage	Lineage Pending	Victoria Lineage	Yamagata Lineage	Lineage Pending
0-4	0(0%)	1(14%)	0(0%)	4(25%)	14(10%)	0(0%)
5-17	1(100%)	2(29%)	0(0%)	4(25%)	42(30%)	0(0%)
18-24	0(0%)	0(0%)	0(0%)	2(13%)	5(4%)	0(0%)
25-49	0(0%)	0(0%)	0(0%)	2(13%)	27(19%)	0(0%)
50-64	0(0%)	0(0%)	0(0%)	2(13%)	21(15%)	0(0%)
>64	0(0%)	4(57%)	0(0%)	2(13%)	30(22%)	0(0%)
<b>Total</b>	<b>1</b>	<b>7</b>	<b>0</b>	<b>16</b>	<b>139</b>	<b>0</b>

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## Comparison of influenza type and strain by MMWR/calendar week, 2014-2015 season



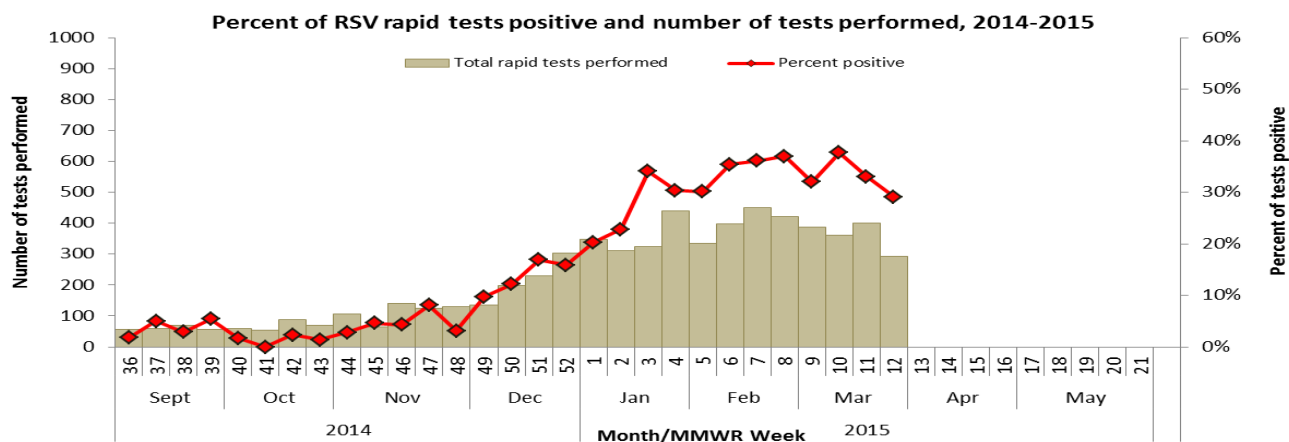
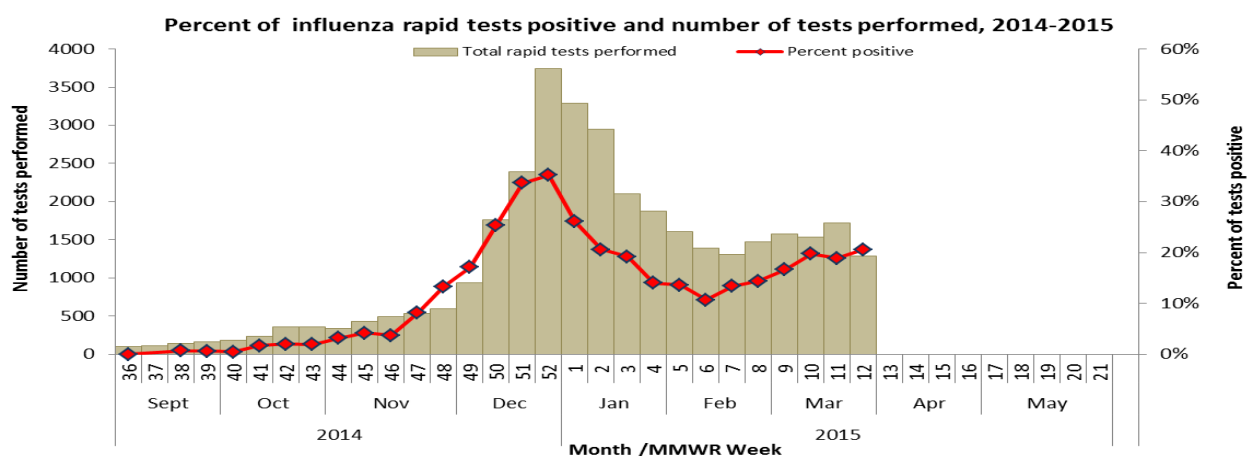
## Rapid influenza and RSV test surveillance:

The State Hygienic Laboratory (SHL) runs a weekly web-based survey program where laboratorians report the number of influenza and respiratory syncytial virus (RSV) rapid tests performed and the number of tests positive. This table includes only the number of patients tested for influenza or RSV at laboratory surveillance sites throughout the state. This table does not provide case counts.

**Table 2: Percent of influenza rapid tests positive and number of tests performed by region for the present week**

REGION*	RAPID ANTIGEN INFLUENZA TESTS					RAPID ANTIGEN RSV TESTS		
	Tested	Flu A	Flu B	Undefined	% Positive	Tested	Positive	% Positive
Region 1	145	2	15	0	11.7	41	14	34.1
Region 2	77	0	18	0	23.4	11	2	18.2
Region 3	201	3	36	0	19.4	41	9	22.0
Region 4	97	1	23	0	24.7	12	5	41.7
Region 5	188	1	26	0	14.4	48	9	18.8
Region 6	578	18	121	1	24.2	139	46	33.1
<b>Total</b>	<b>1286</b>	<b>25</b>	<b>239</b>	<b>1</b>	<b>20.6</b>	<b>292</b>	<b>85</b>	<b>29.1</b>

\*Region 1- Boone, Calhoun, Carroll, Dallas, Greene, Grundy, Hamilton, Hardin, Jasper, Marshall, Polk, Poweshiek, Story, Tama, Warren, Webster; Region 2- Allamakee, Bremer, Butler, Cerro Gordo, Chickasaw, Emmet, Fayette, Floyd, Franklin, Hancock, Howard, Humboldt, Kossuth, Mitchell, Winnebago, Winneshiek, Worth, Wright; Region 3- Buena Vista, Cherokee, Clay, Crawford, Dickinson, Ida, Lyon, Monona, O'Brien, Osceola, Palo Alto, Plymouth, Pocahontas, Sac, Sioux, Woodbury; Region 4- Adair, Adams, Audubon, Cass, Clarke, Decatur, Fremont, Guthrie, Harrison, Madison, Mills, Montgomery, Page, Pottawattamie, Ringgold, Shelby, Taylor, Union; Region 5- Appanoose, Davis, Des Moines, Henry, Jefferson, Keokuk, Lee, Louisa, Lucas, Mahaska, Marion, Monroe, Muscatine, Van Buren, Wapello, Washington, Wayne; Region 6- Benton, Black Hawk, Buchanan, Cedar, Clayton, Clinton, Delaware, Dubuque, Iowa, Jackson, Johnson, Jones, Linn, Scott.



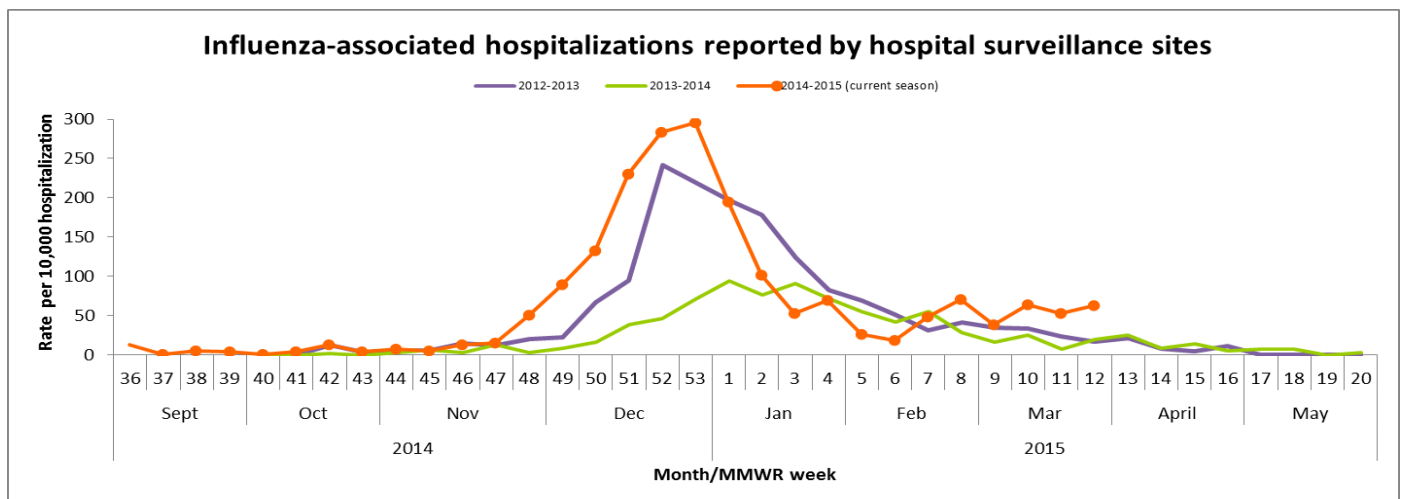
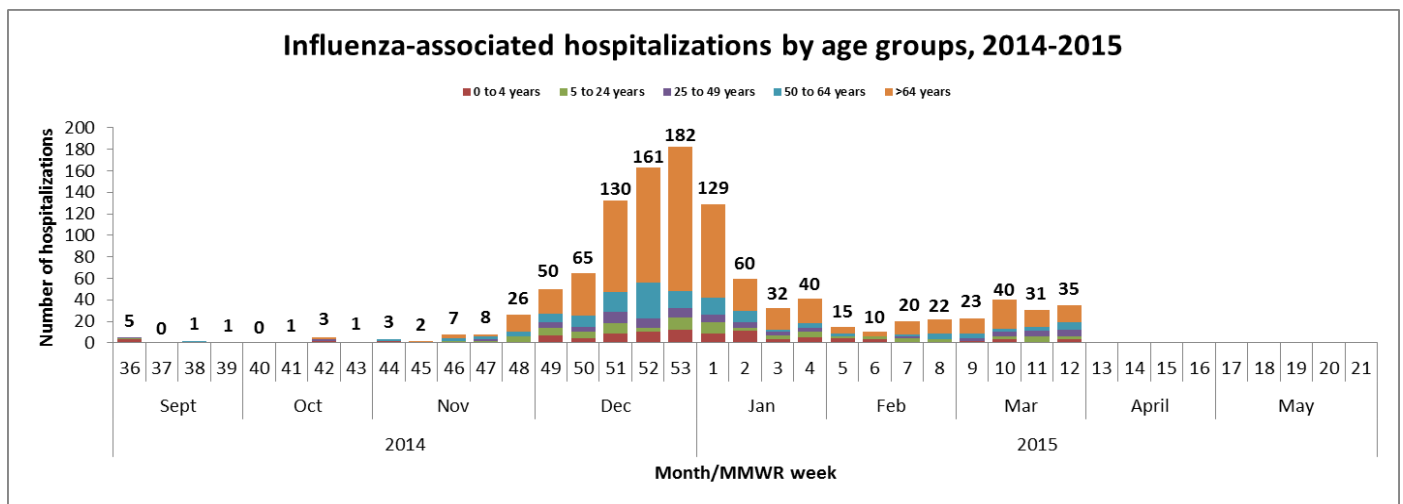
## Non-influenza respiratory virus:

Viruses	CURRENT WEEK	CUMULATIVE (9/1/14 – PRESENT WEEK)
Adenovirus	5	230
Parainfluenza Virus Type 1	1	3
Parainfluenza Virus Type 2	0	100
Parainfluenza Virus Type 3	10	87
Parainfluenza Virus Type 4	0	19
Rhinovirus/Enterovirus	12	783
Respiratory syncytial virus (RSV)	30	420
Human metapneumovirus (hMPV)	13	132
<b>Total</b>	<b>71</b>	<b>1774</b>

## Influenza-associated hospitalizations:

Sentinel hospitals that participate in IISN voluntarily track and report the number of influenza-associated hospitalizations and the total number of inpatients each week.

AGE	CURRENT WEEK	CUMULATIVE (9/1/14 – PRESENT WEEK)
Age 0-4	3	98
Age 5-24	3	90
Age 25-49	6	80
Age 50-64	7	161
Age >64	16	684
<b>Total</b>	<b>35</b>	<b>1113</b>



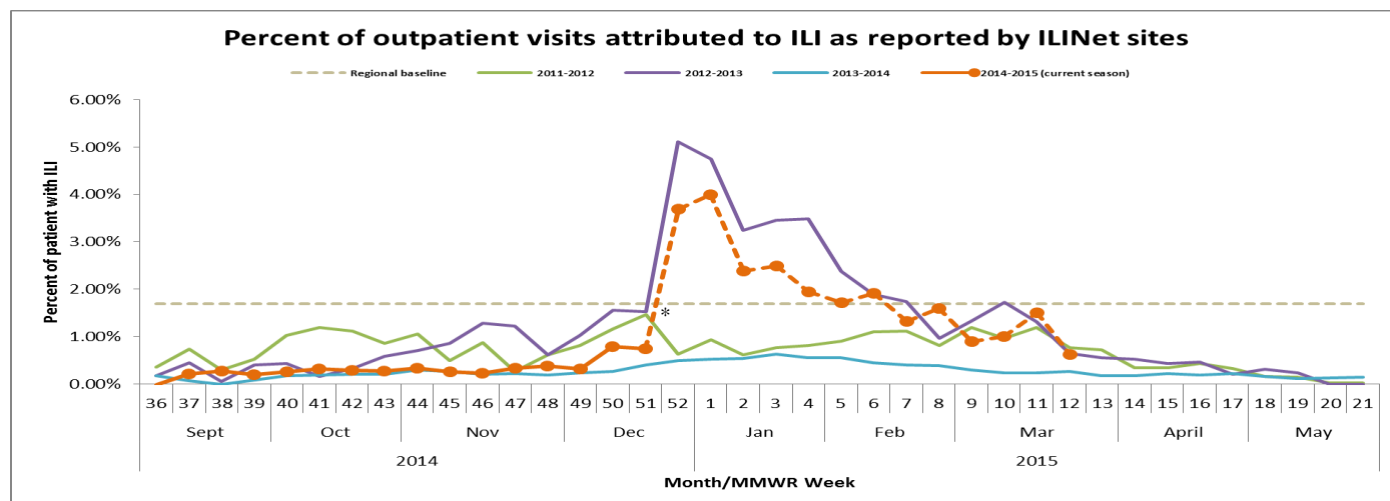
## Outpatient health care provider surveillance program (ILINet):

Outpatient health care providers who participate in the ILINet (a national influenza surveillance program) report the number of patients seen with influenza-like illness and the total number of patient visits each week. This system is a key part of Iowa's influenza surveillance. Iowa health care providers interested in joining this surveillance program should contact Kemi Oni at 515-725-2136 or

[oluwakemi.oni@idph.iowa.gov](mailto:oluwakemi.oni@idph.iowa.gov) for more information.

**Table 6: Outpatient visits for influenza-like illness (ILI) – past 3 weeks**

Hospitalization	%ILI	Total ILI	Age 0-4	Age 5-24	Age 25-49	Age 50-64	Age >64
Week 10, ending Mar 14	1.02	23	3	10	6	1	3
Week 11, ending Mar 21	1.51	16	3	7	6	4	1
Week 12, ending Mar 28	0.64	14	2	10	1	0	1



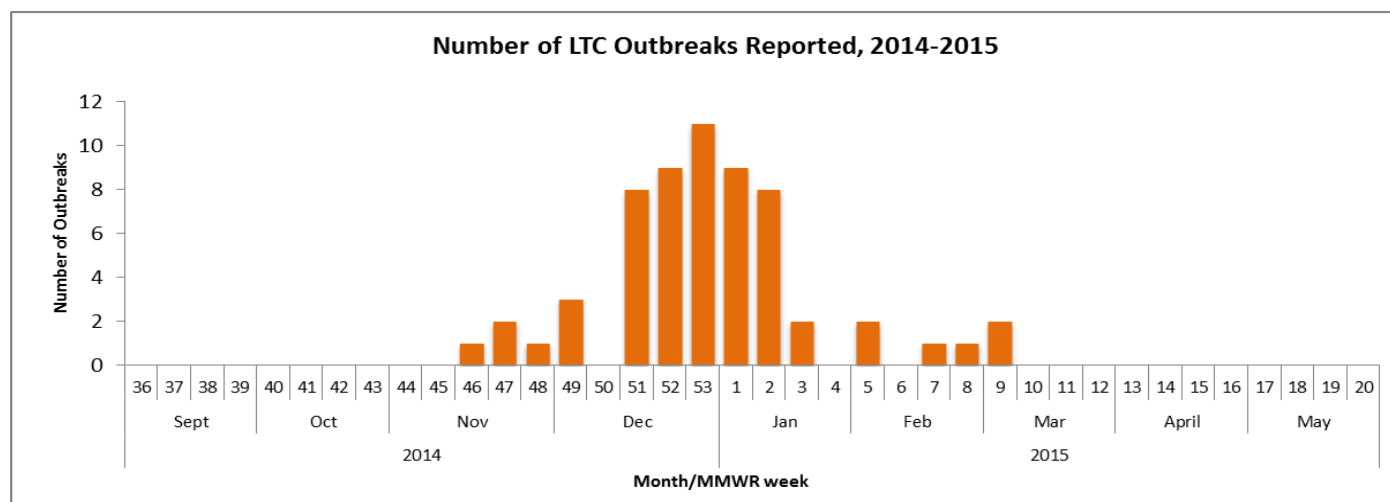
\*Database used to calculate this percentage has been modified to more accurately reflect what is occurring in acute care outpatient clinics in Iowa.

## Long-term Care Outbreaks

**Table 7: Number of long-term care outbreaks investigated**

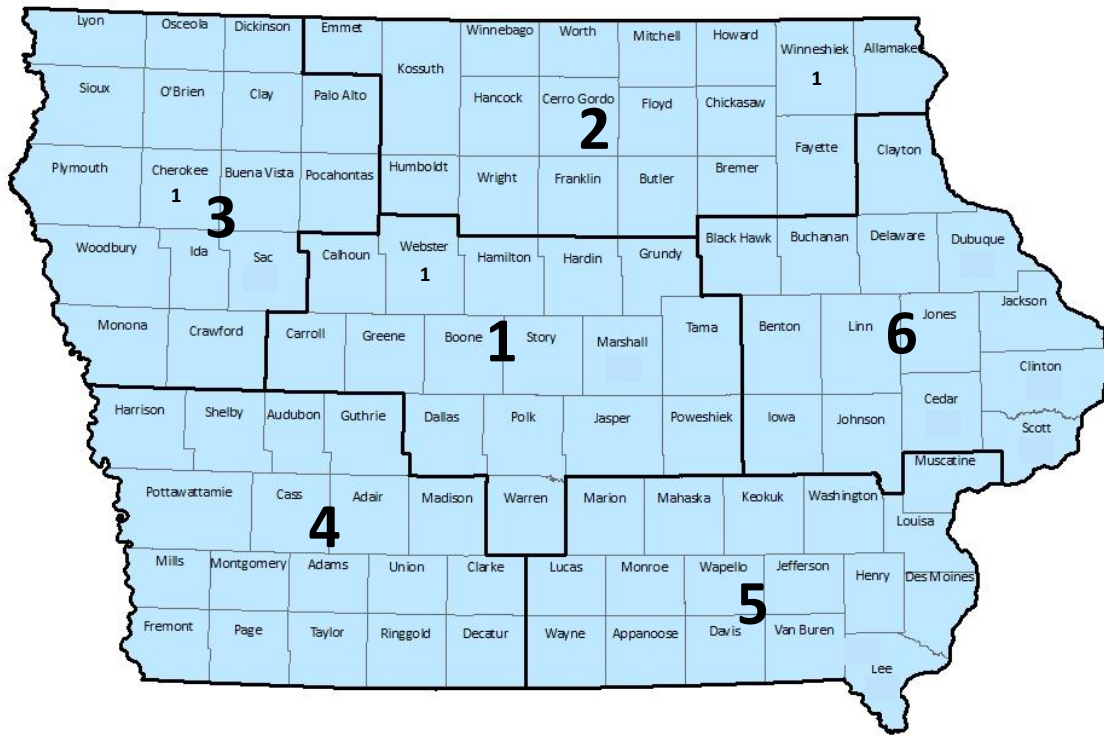
REGION*	CURRENT WEEK	CUMULATIVE (9/1/14 – PRESENT WEEK)
Region 1 (Central)	0	15
Region 2 (NE)	0	12
Region 3 (NW)	0	10
Region 4 (SW)	0	10
Region 5 (SE)	0	4
Region 6 (Eastern)	0	9
<b>Total</b>	<b>0</b>	<b>60</b>

\*Region 1: Boone, Calhoun, Carroll, Dallas, Greene, Grundy, Hamilton, Hardin, Jasper, Marshall, Polk, Poweshiek, Story, Tama, Warren, Webster; Region 2: Allamakee, Bremer, Butler, Cerro Gordo, Chickasaw, Emmet, Fayette, Floyd, Franklin, Hancock, Howard, Humboldt, Kossuth, Mitchell, Winnebago, Winneshiek, Worth, Wright; Region 3: Buena Vista, Cherokee, Clay, Crawford, Dickinson, Ida, Lyon, Monona, O'Brien, Osceola, Palo Alto, Plymouth, Pocahontas, Sac, Sioux, Woodbury; Region 4: Adair, Adams, Audubon, Cass, Clarke, Decatur, Fremont, Guthrie, Harrison, Madison, Mills, Montgomery, Page, Pottawattamie, Ringgold, Shelby, Taylor, Union; Region 5: Appanoose, Davis, Des Moines, Henry, Jefferson, Keokuk, Lee, Louisa, Lucas, Mahaska, Marion, Monroe, Muscatine, Van Buren, Wapello, Washington, Wayne; Region 6: Benton, Black Hawk, Buchanan, Cedar, Clayton, Clinton, Delaware, Dubuque, Iowa, Jackson, Johnson, Jones, Linn, Scott.



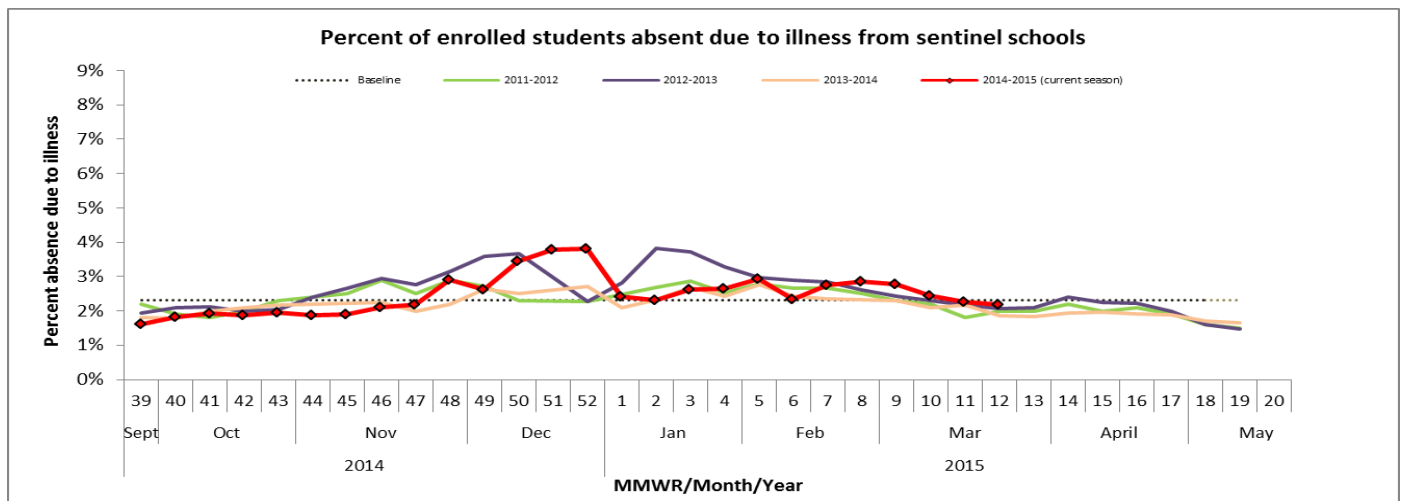
### **10 percent school absenteeism:**

Schools (k-12) track and report outbreaks of influenza-like illness when the number of students absent with illness reaches or exceeds 10 percent of total student enrollment. Regional map with schools that have  $\geq 10\%$  absence due to illness for this current reporting week is displayed below.



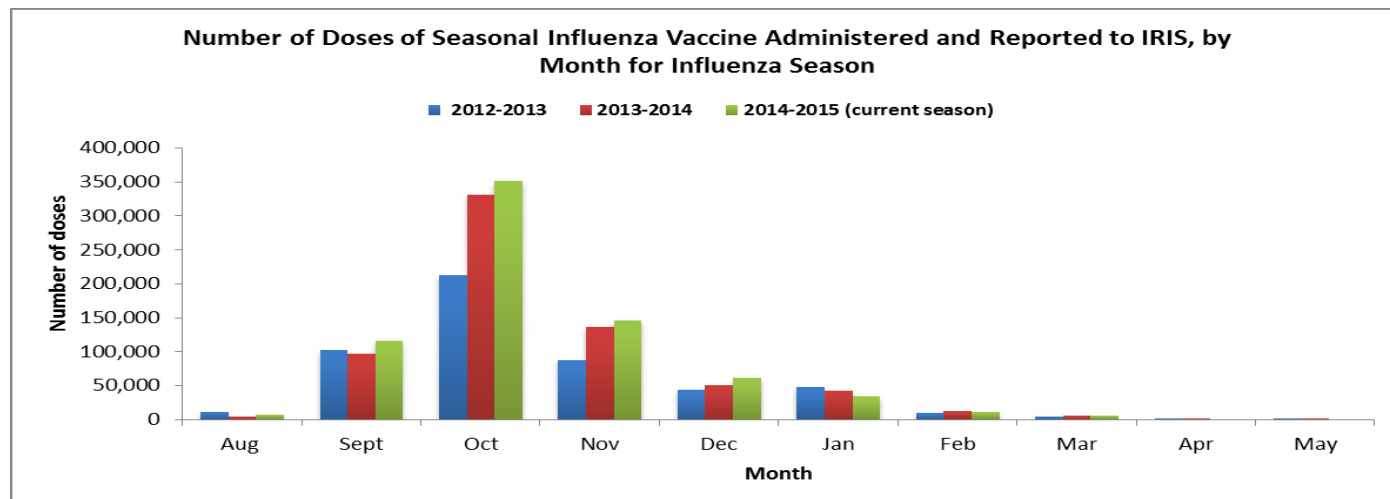
### **School surveillance program:**

Sentinel schools that participate in IISN voluntarily track and report absence due to all illness (including non-influenza illnesses) and the total enrollment each week.



## Seasonal influenza vaccination:

Seasonal influenza vaccination data in Iowa is based on doses reported to the Iowa Immunization Registry Information System (IRIS). IRIS is a confidential, computerized, population-based system that tracks immunization for children, adolescents and adults who are seen in a variety of public and private healthcare provider sites throughout the state of Iowa. For more information on the immunization data, contact Kim Tichy, IRIS coordinator at 515-281-4288 or [kimberly.tichy@idph.iowa.gov](mailto:kimberly.tichy@idph.iowa.gov)



Note: The data for the 2014-2015 season is only up to the current week and there is a lag between the vaccine administration date and the date reported to the IRIS. The current season's data will be adjusted as additional data is received.

## Other resources:

### Vaccine:

Influenza vaccine recommendation: <http://www.idph.state.ia.us/ImmTB/Immunization.aspx?prog=Imm&pg=Flu>

CDC vaccine information: <http://www.cdc.gov/flu/faq/flu-vaccine-types.htm>

Vaccine finder: <http://vaccinefinder.org/>

### Neighboring states' influenza information:

Illinois: <http://www.idph.state.il.us/flu/surveillance.htm>

Minnesota: <http://www.health.state.mn.us/divs/idepc/diseases/flu/stats/index.html>

Missouri: <http://health.mo.gov/living/healthcondiseases/communicable/influenza/reports.php>

South Dakota: <http://doh.sd.gov/diseases/infectious/flu/>

Wisconsin: [www.dhs.wisconsin.gov/communicable/influenza/surveillance.htm](http://www.dhs.wisconsin.gov/communicable/influenza/surveillance.htm)

Google Flu Trends: <http://www.google.org/flutrends/us/#US-IA>